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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,134	02/16/2005	Adrianus Sempel	NL 020757	1961

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EXAMINER

KARIMI, PEGEMAN

ART UNIT	PAPER NUMBER
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2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/525,134

Applicant(s)

SEMPEL, ADRIANUS

Examiner

Pegeman Karimi

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 02/16/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

3. The drawings (Fig. 1, 3-5) are objected to under 37 CFR 1.83(a) because they fail to show labels in the rectangular boxes as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each

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drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8 and 10-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Karube (U.S. Patent 6,456,282).

As to claims 1 and 10, Karube discloses a display device (1, 2, 3, and 4) comprising a number of picture elements (pixel array portion, 2) and a display driver device (3) comprising driving transistors (11) to be connected in series with the picture elements (circuit 11 is connected from one side to signal line drive circuit 3 and the other side to the pixel element.)

the display driver device (3) comprising means (12, control circuit) for monitoring output voltages of the display driver device (col. 5, lines 41-46, and col. 6, lines 51-59).

As to claims 2 and 11, Karube teaches the display device comprising means (12) for signaling (col. 6, lines 51-53) the value of an output voltage to reach a threshold voltage (Fig. 6, at sampling period the output voltage at node "f" = 5V, threshold = 5V, col. 6, line 42).

As to claims 3 and 12, Karube teaches the display device having fusing means (SW1 and SW2) between the driving transistors (INV1, INV2, and INV3) and the picture elements (2).

As to claims 4 and 13, Karube (Fig. 1) teaches the display device comprising a feedback mechanism (col. 8, lines 36-37) to control a reference voltage of the display driver device (col. 8, lines 36-42).

As to claims 5 and 14, Karube teaches the feedback mechanism further comprising a control circuit (10) signaling the difference between an output voltage of the display driver device (Fig. 6, Output voltage of node "f" = 3V) for a picture element and the reference voltage (Input Voltage at node "b" = 5.5V) being below a threshold voltage ($|3\text{volts} - 5.5\text{volts}| = 2.5\text{volts}$, 2.5 volts is below threshold voltage of "5 volts"), .

As to claim 6, Karube teaches the display driver device comprising means (SW7) for detecting after the signaling an open output of the display driver device (col. 12, lines 42-54).

As to claim 7, Karube teaches the display driver device comprising a differential amplifier (Fig. 11, OP1; col. 13, lines 63-65).

As to claim 15, Karube (Fig. 11) teaches a display driver device comprising a differential amplifier (OP1) for detecting (voltage of node b to be set substantially equal to the voltage of Vin) after the signaling an open output (SW13) of the display driver device (col. 14, lines 56-65).

As to claim 16, Karube (Fig. 11) teaches a display driver comprising a switch in the current path (SW13) between the reference voltage (node "a") and the output of the display driver device (node "c").

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 8 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karube (U.S. Patent 6,456,282) in view of Miyazawa (Pub. No. 2003/0160247).

As to claim 9, Karube does not teach the luminescent element. Miyazawa (Fig. 1) teaches the picture element being a luminescent element (3) and the first current determining the luminescence of the luminescent element ([0038], lines 9-17) Therefore it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to have used the luminescent element of Miyazawa in Karube's

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display device because electroluminescent elements can operate at low voltage and have an angle-dependent visibility lower than that of liquid crystal elements ([0015]).

As to claim 8, Karube teaches the feedback mechanism keeping the difference between an output voltage of the display driver device (Fig. 6, Output voltage of node "d" = 3V) for a picture element and the reference voltage (Input Voltage at node "b" = 5.5V) substantially constant (col. 7, lines 35-40).

Miyazawa teaches the picture elements (23) being driven by current sources ([0038, lines 9-15). Thus combining Karube and Miyazawa meet the claimed limitations.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Aoki (U.S. Patent No. 6,603,456) is cited to disclose a signal amplifier circuit / load drive circuit for a liquid crystal display device.

Inquires


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pegeman Karimi whose telephone number is (571) 270-1712. The examiner can normally be reached on Monday-Thursday 8:00am - 5:00pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pegeman Karimi
03/29/2007


CHANH D. NGUYEN
SUPERVISORY PATENT EXAMINER